

Claims

[c1] What is claimed is:

1.A mobile phone with an image recognition function for allowing users to use the mobile phone according to an image recognition acknowledgement result, the mobile phone comprising:

a housing;

an image-capturing module comprising a lens for capturing an image; and

an image recognition module installed inside the housing for recognizing the image captured by the lens of the image-capturing module.

[c2] 2.The mobile phone of claim 1 further comprising an IR cut filter for stopping infrared rays from passing through the lens of the image-capturing module.

[c3] 3.The mobile phone of claim 2 wherein the IR cut filter is installed above the lens in a movable manner.

[c4] 4.The mobile phone of claim 3 further comprising a sliding set installed on the housing in a slidable manner, wherein the IR cut filter is installed on the sliding set.

- [c5] 5.The mobile phone of claim 1 wherein the image-capturing module is an external phone camera installed outside the housing.
- [c6] 6.The mobile phone of claim 1 wherein the image-capturing module is a phone camera installed on the housing of the mobile phone.
- [c7] 7.The mobile phone of claim 1 further comprising:
a control module installed inside the housing for controlling the mobile phone; and
a memory installed inside the housing and electrically connected to the control module for storing image data recognized by the image recognition module;
wherein when the image captured by the image-capturing module corresponds with image data previously stored in the memory, a corresponding identification code will be sent by the image recognition module to the control module.
- [c8] 8.The mobile phone of claim 7 wherein when the control module receives the corresponding identification code, the control module will boot the mobile phone.
- [c9] 9.The mobile phone of claim 1 wherein the image is a pattern of a persons face.
- [c10] 10.A method for allowing users to use a mobile phone

according to an image recognition acknowledgement result, the mobile phone comprising a housing, a control module, and a memory, the method comprising:

- (a) providing an image-capturing module comprising a lens, and using the image-capturing module to capture an image;
- (b) providing an image recognition module installed inside the housing of the mobile phone, and using the image recognition module to compare the image captured by the image-capturing module with image data previously stored in the memory; and
- (c) after step (b), if the image captured by the image-capturing module corresponds with the image data stored in the memory, sending a corresponding identification code to the control module with the image recognition module.

[c11] 11. The method of claim 10 further comprising providing an IR cut filter for stopping infrared rays from passing through the lens of the image-capturing module, wherein in step (a), when the image-capturing module is used to capture the image for image recognition, the IR cut filter is removed from the front of the lens of the image-capturing module, and when the image-capturing module is not used to capture the image for image recognition but for photo, the IR cut filter is moved to

the front of the lens of the image-capturing module.

- [c12] 12.The method of claim 11 further comprising providing a sliding set installed on the housing in slidable manner, and installing the IR cut filter on the sliding set.
- [c13] 13. The method of claim 10 wherein the image-capturing module is an external phone camera installed outside the housing.
- [c14] 14.The method of claim 10 wherein the image-capturing module is a phone camera installed on the housing of the mobile phone.
- [c15] 15.The method of claim 10 wherein the image is a pattern of a persons face.
- [c16] 16.The method of claim 10 further comprising when the control module receives the corresponding identification code, booting the mobile phone.